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# Procurement models applied to independent power producer programmes in South Africa

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## Key points

- The REIPPPP is largely viewed as a positive and innovative programme
- We need a base load procurement model that builds on the successes of the REIPPP and extends these to base load IPPs
- Eskom's future financial health presents a significant risk to procurement of renewables, thermal baseload and nuclear power
- The contribution to socio-economic development should be extended to all other IPP procurement
- There is signficant risk that political considerations may override rational planning in relation to nuclear power
- Procurement should be well-designed upfront, flexible, plans indicative, the regulator active and procurement more vibrantly competitive

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# Contents

## Executive summary

What is the procurement model in South Africa as it applies to renewable energy (RE) and base load (BL) independent power producer procurement programmes (IPPPP) and how might these be improved? What lessons have been learned in the RE IPPPP? What challenges might the emerging BL IPPP programme face and how might these challenges be addressed? To what extent are lessons from RE applicable to BL? This research paper provides conclusions from consideration of these questions, shares research findings, highlights remaining critical questions, and provides recommendations for the future.

Procurement is an aspect of governance, and improved governance is one of five goals of energy policy, as outlined in the 1998 White Paper, which considers procurement as 'that step within planning during which government determines what is to be built; and which ends with the announcement of preferred bidder(s)'/

Research findings are based on primary data gathered through a literature review followed by interviews with 20 senior respondents from the following zones within the energy sector: government, business, investment, consultancy and advisory, labour and NGOs. A listing of secondary literature consulted is provided on the final pages of this report.

Based on analysis of interviews and literature, this study finds that the key successes in South Africa's RE IPP Procurement Programme (REIPPPP) are, in summary:

- The transparency of the process and decisions reached.
- Learning and improvement of the procurement process through multiple bidding rounds.
- Flexibility in relation to process and policy.
- The role of the IPP unit, the partnership between Treasury and DOE and the relative independence of the unit.
- Sound design and trusted expertise.
- Stimulating competition, which drove down prices significantly.
- Speedy conclusion of evaluation of bids.
- High-level political support.
- Relative independence of the IPP procurement unit.
- Tough but achievable Socio Economic Development and Enterprise Development (SED and ED) criteria.

Key challenges of the REIPPPP were noted as:

- Eskom as single buyer.
- Ministerial powers.
- Uncertainty whether RE can yet be deemed to have changed the sector overall.
- Risk of failure to implement and monitor SED and ED criteria.
- Local legal and technical capacity are limited.
- Transmission constraints which may negatively impact grid connection.

Overall, the REIPPPP is viewed by many respondents as a positive and innovative programme. Caution is mainly expressed in relation to the long-term prospects for benefits that really accrue to South Africa's development agenda.

Next we analysed South Africa's emerging BL IPPP programme. Given that we do not yet have sufficient information on the emerging BL IPP procurement model, we have limited the section on BL IPPPP to what is currently known, hoped for and questioned.

These are some of the main concerns expressed by interviewed respondents in relation to the emerging BL IPPPP:

- There is no clearly stated procurement model, and publicly available information following the 2012 Ministerial determination remains limited.

- The REIPPPP has revealed that we have limited local capacity to manage complex transactions, and this is expected to be further stretched in larger, more complex BL IPP procurement.
- The devil is in the (dispatch) detail – the content of power purchase agreements will be key to viability of this programme.
- The mandates of ministers concerned with base load supply may potentially be in conflict.
- Large energy deals generally have a higher risk of rent-seeking, which needs to be carefully managed.
- Managing this is exacerbated by high transaction costs and strains on domestic financial resources.

A key finding is that Eskom's future financial health presents a significant risk to both RE and BL IPPPPs.

The paper then pauses in its analysis of RE and BL IPPPPs to consider nuclear procurement, which is treated as a 'special case' – nuclear procurement is excluded from new generation regulations and its model of ministerial determination. Given the geopolitical dynamics around nuclear power, it is feared by many respondents that political considerations may override rational planning. This seems inappropriate for a technology facing particular challenges and risks (in addition to the financial challenges that all investments face).

The study concludes with questions and recommendations for the future. It is proposed that a procurement model in South Africa should:

- build on the successes of the RE IPPPP as many of these are transferable;
- be transparent and enhance accountability, being well-defined for all energy technologies, upfront;
- be flexible, indicative of plans and vibrantly competitive resulting in lower tariffs but not at the cost of SED and ED criteria weighting;
- continue the role of the IPP unit, enhance domestic capacity for transaction advice and ensure watertight power purchase agreements that are not solely subject to the priorities of the system operator;
- extend the contribution to socio-economic development to all procurement, with the possibility of applying different price/non-price ratios;
- include an active role for the regulator, and limit the role of the minister to the highest level of policy development;
- Consider the large scale of BL IPP procurement, and explicitly manage the risk of rent-seeking; and
- Seek to avoid politicisation of large investment, including that of nuclear power.

## Acknowledgements

All interviews and primary research for this report were conducted by the lead author, Brenda Martin, who wishes to thank all respondents for their valuable inputs and time. Harald Winkler developed the research concept, provided academic supervision along the way and comprehensive review inputs to drafts. As part of the research, Brenda convened a workshop with some respondents in Cape Town. This workshop included a review of the research findings up to that point and discussion of the complexities of procurement.

Particular acknowledgement goes to valuable early contributions on the state of play in renewable energy and the South African electricity supply context respectively by Holle Wlokas and Hilton Trollip.

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# 1. Research question

What is the procurement model in South Africa as it applies to renewable energy and base load independent power producer (IPP) programmes, and how might it be improved? In particular, what challenges might the base load IPPP programme face and how might these challenges be addressed?

This study will consider procurement as 'that step within planning during which government determines what is to be built; and which ends with the announcement of preferred bidder(s).' It is our understanding that the IPP procurement process fits within the overall electricity supply planning process, as illustrated in Figure 1.

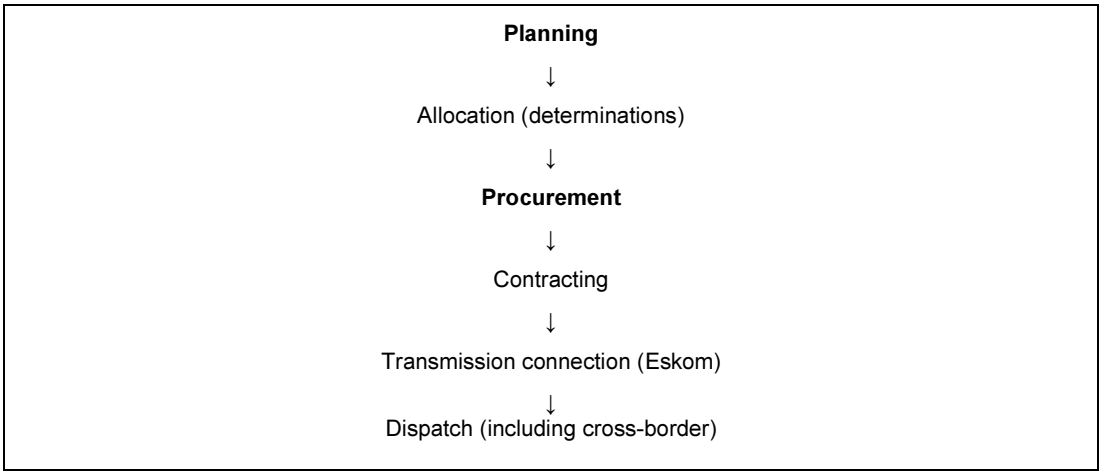


**Figure 1: Procurement in the context of overall electricity supply planning**

***Approach, framing and methodology***

This is a research study, setting out to describe and analyse the status quo, observed risks and opportunities, remaining questions and make recommendations for the future. The methodology applied included gathering and analysing primary data from literature, followed up with 20 formal stakeholder interviews (with experts and senior role-players in the energy sector, including the system operator, the regulator, independent power suppliers, government, labour and civil society); as well as secondary data analysis and reflection based on ongoing literature review.

The study commenced in March and concluded in August 2014. A summary and analysis of initial findings was compiled and critiqued at a small workshop with seven experts and three observers, hosted at the ERC on May 21st, 2014.

Procurement takes place in a broader planning process and in the context of the history of energy supply in South Africa. Before turning to procurement in theory, and the practice as seen in RE and emerging BL IPP procurement, a brief historical context is provided.

# 2. A brief historical context for energy procurement in South Africa [1]

South Africa relies largely on coal-powered energy supply – approximately 70% of primary energy and over 90% of electricity relies on coal. A state-owned enterprise, the national utility Eskom, generates 96% of the country's electricity, owns and controls the national grid and distributes approximately 60% of electricity directly to customers. Local municipalities buy

[1] We acknowledge with thanks the contribution made by Hilton Trollip to this section.

electricity in bulk from Eskom and sell on to customers at a profit. Direct electricity sales to mines and industry make up about 40% of Eskom's distribution business. During the apartheid era, Eskom embarked on an extensive investment programme which continued into the 1980s when it first started to emerge that Eskom was at risk of overinvestment. By the end of the 1990s, South Africa's electricity prices ranked among the cheapest globally (Van der Heijden, 2013).

In 1998, the four-year-old democratic government published a White Paper on Energy Policy (DME 1998). Overall policy objectives for the South African energy sector at the time were defined as:

- increasing access to affordable energy;
- improving energy governance;
- stimulating economic development;
- managing energy-related environmental impacts; and
- securing energy supply through diversity.

Approved as government policy in December 1998, the White Paper constituted a comprehensive blueprint for transforming the energy sector. It has not been superseded since, and thus provides the overarching policy context for procurement models for IPPs in South Africa today.

The White Paper was located in a global environment of significant energy policy transition in the post-oil crisis era. Energy sectors were increasingly moving to market-based pricing, and energy markets were being restructured to encourage greater competition. As a result, globally the role of the state in the energy sector was being redefined, with greater emphasis placed on commercialisation, corporatisation and privatisation.

While it addressed pressing challenges at the time (electrification, distribution, emissions), the relevance of the White Paper for this study is that it provides the policy context for procurement. Consistent with improving energy governance, it set out to improve energy planning accountability and transparency through greater stakeholder involvement and governance (institutions), to address expansion of distribution by introducing IPPs and to shift the focus from a supply- to a demand-driven energy planning model. As stated above, procurement is a part of a broader planning process (see Figure 1).

Decisions around new electricity supply investments (i.e. when they would be made and their magnitude) would be done within the ambit of the 'compulsory use' of IRP methodologies. This would 'ensure that utilities avoid or delay electricity supply investments, or delay decommissioning decisions, when it is economical to do so, by optimising the utilisation of existing capacity and increasing the efficiency of energy supply and consumption' (DME, 1998).

Significantly, the Paper stated that 'responsibility for integrated energy planning should lie with government, rather than any sector participant'. Eskom no longer had the sole authority to do planning for electricity generation. The Department of Minerals and Energy (DME) now had the mandate for policy development in the energy sector, including the IRP process, and overseeing the restructuring of the electricity sector. In 2009, the DME was divided into two ministries, the Department of Mineral Resources (DMR) and the Department of Energy (DOE). DOE has been responsible for energy policy since then (July 2009). We will return to the evolving role of DOE in the analysis of RE and BL procurement in practice, but next outline procurement in theory.

# 3. Procurement in theory

## 3.1 What is energy procurement?

The working definition of energy procurement for this study is 'that step within planning during which government determines what is to be built; and which ends with the announcement of preferred bidder(s)'.

IPP programmes introduce competitive procurement for new private power capacity. The focus of this study is on IPPs – base load (BL) and renewable energy (RE) – and thus does not cover Eskom's new capacity build. Eskom is a public-owned utility, whereas IPPs are by definition 'independent' of government and assumed to be privately financed.

### 3.2 The governance of procurement

Procurement in SA is governed by the Constitution, the Public Finance Management Act (PFMA) and Treasury regulations and guidelines. Treasury regulations also provide minimum requirements for different stages of the procurement process, and Treasury oversees implementation of the policy via its own Supply Chain Management (SCM) office. This office provides a link between government, National Treasury and different SCM units in the organs of state. Treasury regulations also cover procurement via public private partnerships.

Procurement of energy supply takes place in this overall context, but also has specific provisions. The DOE has set down regulations to govern procurement specifically for new electricity generation capacity (DOE 2011). The regulations are under the Electricity Regulation Act of 2006, which was amended in 2007 (DME 2007).[2] The regulations consider procurement from Eskom, other government agencies or – relevant here – IPPs. It should be noted that the minister determines the buyer (or procurer and buyer) in terms of section 6 (3) of the regulations. Nuclear power has been explicitly excluded from these regulations. With exemptions to the Preferential Procurement Framework Act published in 2011, the REIPPPP was given exemption from the price, non-price ration stipulation of 90:10 to 70:30.

Having outlined context and governance of energy procurement today, this paper now turns to the current state of play in procurement for IPPs – RE, BL and nuclear.

## 4. State of play – procurement in practice: RE IPPPP[3]

Under the REFIT process approved in 2009, initially the National Energy Regulator of South Africa (NERSA) took the lead role in designing a feed-in-tariff and was expected to manage the procurement process. But, given the legal and price concerns in relation to feed-in-tariffs, the competitive bidding process (i.e. the REIPPPP) was introduced and NERSA officially terminated the REFITs. It was then decided that the DOE would lead on the new programme, which included a fixed price component but also much more.

The REIPPPP was introduced within an institutionally weak energy sector (Eberhard, 2013a). It is also worth noting that the DOE's 2010/11 *Annual Report* did not mention the REIPPPP at all, suggesting that the shift was unanticipated.

The 2013 DOE budget indicated planning for six funded posts within the RE implementation programme, with potential for three more to be added within the following three years, in order to achieve the target of 17.8 GW new RE capacity by 2030. By contrast, the country's anticipated nuclear build programme has 21 posts confirmed, to achieve a target of 9.6 GW by 2030 (DOE, 2013).

Early in 2011, recognising its limited institutional capacity to run a sophisticated, multi-project, multi-billion dollar internationally competitive bidding process for RE, the DOE sought the assistance of the National Treasury's Public Private Partnership (PPP) Unit to manage the process.

A small team of technical staff from DOE and the PPP Unit established a project office known as the DOE IPP Unit which then proceeded to function as a small, tight-knit, effective and professional team outside the formal departmental structure of national government as facilitator of the REIPPPP process (Eberhard, 2014). As Eberhard concludes, the perceived credibility of the team 'allowed the unit to act effectively as a champion of the REIPPPP process.'

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2 A second amendment Bill was considered by Parliament, but no Act was passed.

3 We acknowledge with thanks the contribution of Holle Wlokas to this section.

The process was also soundly resourced with sovereign guarantees. The Development Bank of Southern Africa (DBSA) provided a share of senior debt on the projects and R80 million for consultants, a project office and capacity building. In addition, technical assistance funding was provided by bilateral international donor agencies. Finally, the World Bank facilitated a US$6 million grant from the Global Environment Facility (GEF) for advisory services under the RE Market Transformation project. In the 2011 Budget, National Treasury made R100 million available (some of which repaid DBSA) and saw the programme through the first round and into part of the second.

Currently the programme relies on bidder registration fees and fees paid by successful bidders once implementation agreements are effective to cover operational costs. These fees are paid into a Project Development Fund for RE projects managed by DOE. The Fund covers current and future costs associated with DOE procurement of RE and oversight of the programme. This has ensured that the REIPPPP now remains off the government budget (DOE, 2013).

The DOE formally launched the REIPPPP on 3 August 2011. The initial announcement had provided for procurement of 3 725MW in five different rounds, subject to the availability of MW. Although the total capacity offered has been restricted within the two initial bidding rounds, in December 2012, a Ministerial determination indicated that a further 3 200MW of renewables capacity was to be procured in subsequent bidding windows. Of this, an additional allocation of 308MW was made available for bidding window 3 which commenced in May 2013.

## 4.1 REIPPPP agreements

REIPPPP agreements entered into to-date are:

- Under Bid Window 1, 28 agreements on 5 November 2012;
- Under Bid Window 2, 19 agreements on 9 May 2013.
- Under Bid Window 3, 93 bids received in August 2013 of (17 accepted).

An additional CSP-only bid window was announced for March 2014.

The DOE reported to parliament's portfolio committee on Energy in November 2013 that these bids amount to 6 023 MW RE supply capacity thus far, with almost 100% of available MW taken by preferred bidders in each bid window (DOE 2013).

The DOE has published an updated request for proposals for the fourth REIPPPP bid submission date, where bid registration was scheduled for July 21, 2014 and submissions for August 18. Preferred bidders should be announced on October 28. A total of 2 808MW capacity remains to be allocated in this fourth window period (DOE 2013). In her budget speech (July 2014), new Energy Minister Joemat-Petterson indicated that the close of the fourth window had been shifted to November 2014.

Professor Anton Eberhard has noted in two recent REIPPPP analysis reports that between window 1 and window 3, the bid price dropped approximately 68% (Eberhard, 2013b & 2014).

For the above window 1 and 2 agreements, the DOE has reported that 7 915 jobs would be created during construction and 18,228 jobs during operations. The bulk of the operations phase jobs would be located in the Northern Cape (8 736) followed by the Eastern Cape (4 908) (Wlokas, 2013).

Since 2012 the DOE has reported to the Parliamentary Portfolio Committee on Energy (PCE) that it has limited institutional capacity (DOE, 2013). The Department has acknowledged initial delays in the finalisation of successful REIPPPP bids due to a lack of experience with such processes and a lack of capacity to conclude the contracts involved. The Presidency's Department of Performance Monitoring and Evaluation also reported in 2012 that the objective of creating a regulatory institutional framework for the introduction of viable BL IPPs was behind schedule (PCE Budgetary Review & Recommendation Report process, 2012).

Shareholding by local communities at 2.5–5% of project shareholding was a requirement in the request for information, but was not specifically noted as an evaluation criterion in the above

phases described by the DOE briefing to parliament in June 2012. Several respondents who had been involved as bidders in the REIPPPP thus far expressed their perception that the local content criterion weighting is likely to be lowered in Window 4, with price being prioritised more.

Under the REIPPP, after three rounds of competitive bidding, South Africa currently has 64 approved wind, solar, small hydro and bioenergy projects at various stages of development, with many of the round one projects starting to come online. These plants have contracts to generate electricity for 20 years and the cumulative commitments made towards socio-economic development (SED) and enterprise development (ED) amounts to a substantial R11.5 billion over this period (Wlokas, 2014). Each of the 64 approved projects involves as many as 17 SED and ED commitments, each reporting performance on a quarterly basis (Eberhard, 2014).

According to the DOE IPP report of November 2013, all PPAs for Bid Windows 1 and 2 have been concluded.

Next we provide an analysis of the evaluation process.

## 4.2 Evaluation of bids

Bid evaluation involved a two-step process. First bidders had to satisfy minimum threshold requirements in six areas: environment, land, commercial and legal, economic development, financial and technical. Bids that satisfied these requirements then proceeded to the second phase of the evaluation where bid price counted for 70% of the total score and the remaining 30% covered a combination of job creation, local content, ownership, management control, preferential procurement, enterprise development and socio-economic development. Bidders were asked to provide two prices: one fully indexed for inflation and the other partially indexed (Eberhard, 2014).

The REIPPPP Evaluation Protocols were as follows (REIPPPP Unit, 2012):

- Evaluation to be conducted in a 'closed' evaluation environment, under strict security conditions.
- Due to limited local legal human resource capacity, some firms' members of the evaluation team are 'ring-fenced' within each of their firms.
- Declaration of interest to be made by all firms and individuals involved in the evaluation process.
- Reports prepared by each discipline to be reviewed by independent review teams.
- The overall process to be reviewed by independent governance review teams

All respondents who had experience of competitive bidding expressed admiration for the quality of the evaluation process and the substantial trust ultimately felt toward the team managing the process. This trust had grown in time, from initial scepticism around efficiency prior to Window 1, borne out by initial teething problems evident during Window 1, to observing adoption of design improvements by Window 2, and ultimately resulting in faster turnaround times by window 3.

In terms of transparency, information was initially not always made available as easily as bidders would have preferred, but commitment to transparency was demonstrated in practice by improved timeous release of information.

In terms of bid evaluation human resource capacity, some respondents pointed out that, while South African capacity is still being built, many of the expert review panel members are foreigners and this is a weakness which needs to be addressed.

The REIPPPP unit is being managed by a handful of key treasury and DOE staff, with the support of over 100 private consultants. Efforts are being made to proactively build local capacity through academic courses, internships and re-skilling programmes.

We now return to consideration of the procurement model for the REIPPP and then look in some detail at the key successes and failures we found.

### 4.3 The procurement model in REIPPPP

The following procurement model has been applied:

- **Phase 1**: Request for information and Request for proposals issued by the IPP unit – clarifying existing capacity, requirements and rules.
- **Phase 2**: Bid submission and evaluation of all submissions by the IPP Unit's evaluation experts – considering qualification criteria of each submission in terms of environment, land, economic development, finance, technical, price, capacity to deliver, potential contract between IPP and Eskom.
- **Phase 3**: The IPP Unit drafts and finalises the Implementation agreement and the contract between the IPP and DOE.

## 5. Key features of success of the REIPPP – from stakeholder interviews and literature

The REIPPPP is generally acknowledged, in literature and by respondents, as a positive and innovative programme. The inclusion of Treasury was repeatedly cited as a critical contributing factor to the overall success of the programme. The SED and ED components in particular are admired as appropriate within South Africa's development context.

Respondents generally agreed with the following high-level features of success of the REIPPPP cited in literature:

- Transparency: Enquiries were answered and. as time passed, within increasingly reasonable timeframes.
- Learning: It was obvious that process-related lessons were applied so that the process improved with each bid window.
- Flexibility: Several necessary aspects of legislation were amended to ensure the programme could be implemented, with the inclusion of Treasury even though the programme was primarily the responsibility of DOE.
- Sound design: High quality documents, successful and largely trusted processes (particularly evaluation), tight timeframes and obvious improvements applied from one bidding round to the next.
- Competition stimulated: Prices (in c/kWh) dropped significantly between Window 1 and 3 and continue to do so. Given the weakening of the rand it is not clear whether prices can continue to drop.
- Speedy conclusion of contracts leading to physical grid connections. The positive psychological effect and contribution to growing public support by actually seeing RE plants up and running was cited by many stakeholders.
- Relative independence: The IPP procurement unit, while established by DOE and Treasury, and formally part of DOE, felt operationally as if 'outside' of government and had flexibility to work effectively without common bureaucratic constraints. A few respondents pointed out that this is potentially also a weakness, as the Unit has weaker links to its formal institutional home.

The competitive bidding approach is largely cited as generally effective common practice to the extent that it can significantly contribute to rapid price decreases in RE technologies. Reduced prices for RE, driven by both the REIPPPP locally and global trends, may then mean that the local RE sector is well-placed to grow more rapidly, and particularly to grow its local content.

Some respondents hold the view that any significant investment value from the first four REIPPPP bidding windows will accrue to investors outside of South Africa's borders. One respondent disagreed strongly with this view and pointed to the more than US$14 billion worth of private investment generated, of which approximately 86% is financed by SA institutions.

In the past two years Anton Eberhard has provided two extensive analyses of the REIPPPP: one for the International Finance Corporation (Eberhard 2013), and another for the Public Private

Infrastructure Advisory Facility of the World Bank (Eberhard 2014). These are some additional success features identified by Eberhard:

- High-level political support.
- Adequate investment in transaction expertise for tender design and evaluation.
- Although earlier RE policies (e.g. REFIT) were incomplete, they spurred early action by project developers which enabled REBID to take-off.
- Multiple bidding rounds allowed confidence in the programme to grow and increased levels of competition with increased participation over time.
- Global competitive context for renewable energy industry.
- Tough but achievable economic development criteria.
- One per cent of project cost into RE fund to support subsequent procurement process management.
- The scale of investment commitments places the programme among the top ten privately funded RE programmes in the world and makes it the largest national IPP programme ever attempted in Africa.
- Shift to competitive tendering helped tariffs come down sharply after round 1.
- Changing the REIPPPP from a once-off tender to a rolling series of bid rounds built confidence in the programme among operators and investors and generated increasing levels of competition as more and more players participated in tendering.

## 5.1 Failures of the REIPPPP – from stakeholder interviews and literature

By far the strongest criticism of the REIPPPP in the literature reviewed and the expressed views of respondents is that it places too high a value on price and too low a value on local commercial benefits. It is asserted that foreign investors have access to subsidies in their countries of origin that enable them to compete powerfully on price. On the other hand, prices must be affordable in order to increase demand and, by implication, electricity access. Views on whether open competition based on price is a good or a bad thing are mixed and largely grounded in value judgements.

The following are common failures and risks within the REIPPP noted from expert and stakeholder interviews:

***The role of Eskom as single buyer***

There is extensive consensus among stakeholders that Eskom has been mismanaged for some time and that we are now experiencing the severest symptoms of its financial and operational distress. There is, however, substantial disagreement as to *how* the problems associated with Eskom as single buyer should be resolved.

Some stakeholders believe that Eskom should be unbundled into the three main functions of generation, transmission and distribution. These stakeholders generally also see a key role for an Independent System and Market Operator (ISMO). Others believe that – given the clear linkages between developmental progress and electricity access – a national utility in South Africa must have close government oversight and this must include all aspects of electricity supply. There are yet other views between these two poles, that support a model where ISMO exists, that Eskom retains a reasonable monopoly, but the market is opened up to a greater share of IPPs with stronger political support for distributed energy services high on the national developmental agenda.

One clear point of agreement among respondents in relation to Eskom as single buyer is that this will continue to put initiatives like the REIPPPP at risk. These risks include worries that if Eskom's financial status continues to deteriorate this will put pressure on government funding available to IPPs; that government's international credit rating is closely linked to Eskom's financial health; and that, should Eskom be unbundled, there would be direct impacts on IPP contracts. Respondents expressed the cautious expectation that the risk that Eskom would enter into PPAs, which was an earlier concern, seems to have been largely addressed through the REIPPPP.

There is broad consensus that uncertainty in relation to Eskom's future status presents a significant risk to RE and BL IPPs.

***The role of the Minister in the DOE***

Several respondents expressed the view that that the Energy Minister's decision-making powers are too broad and often leave decisions to subjective judgement. The basis on which the Minister determines might be more clearly spelled out and circumscribed in the Act and regulations. This in turn can lead to slow development of projects, which then impacts on available up-and-running examples to learn from. On the other hand, the view was expressed by respondents that the 2012 ministerial determination led to an increase in offers of capacity of RE, which is acknowledged by all as a very positive outcome. No other country in Africa has such a close link between planning and procurement, contained within legislation (Eberhard, 2014).

A majority of respondents supported the view that in time it would be far more effective if the Minister's role was limited to the highest level of policy development and guidelines which can lead to the creation of a sufficiently optimal space for markets to thrive and prove their capacities.

***Whether the REIPPPP can be taken seriously as a game-changer***

Respondents have many uncertainties in this regard. Even with the success of the REIPPP programme, a common view in South African society remains that RE cannot make as serious a contribution to electricity supply as BL. Some respondents wonder if the REIPPPP was just a disguised concession to enable the nuclear procurement process to go ahead with less resistance from civil society. Others ask whether the REIPPPP was successful because it was small enough not to seriously threaten Eskom interests.

Given that mostly foreign developers have won bids thus far, it is not clear yet how much of the benefit associated with the REIPPPP will accrue directly to South Africa. There have been media reports that the REIPPPP has in fact caused some local developers to close shop or reduce their contract share through partnerships in order to merely stay in the game. Little empirical evidence of this trend was found in this research, perhaps only because an analysis of this facet has not yet been undertaken.

A fairly common view is that the REIPPPP happened when it did, and as quickly as it did, probably because of a combination of the following factors: credibility related to COP17, to honour sovereign debt obligations attached to the World Bank loan for Medupi, and to satisfy the loud calls for a pro-RE supply environment when REFIT had been deemed unfeasible.

***The potential for delivery failure on socio-economic and enterprise development criteria***

Projects under the REIPPP programme are obliged to make a contribution to local economic development in the immediate geographic area of power plants. Procurement rules stipulate that projects spend a percentage of their revenue on SED and ED, as well as allocate ownership shares to local communities.

The Energy Research Centre has been facilitating dialogues between RE developers, community engagement facilitators, government and academics over the past three years. These conversations have revealed great concern, uncertainty and risk in the following key areas:

- Managing expectations of beneficiary communities, managing potential intra- and inter-community conflict in relation to substantial future funding and local benefit ownership.
- Lack of experience of developers to effectively manage community engagement processes, given that their primary business is RE construction and generation.
- Lack of clarity in relation to how delivery on SED and ED components will be assessed by DOE, particularly given absence of feedback from the evaluation process in relation to SED and ED components of bid submissions.

With 64 approved projects and each involving 17 SED and ED commitments, little guidance from DOE on the requirements for SED and ED projects, the lack of community engagement experience of developers and the lack of monitoring capacity within DOE, there is a high risk

both of potential non-delivery and of DOE's inability to hold project developers to account (Wlokas et al, 2012; Baker & Wlokas, 2014). Further research into the evidence of effects of SED and ED commitments is required as plants are connected to the grid, generate electricity and revenues.

***In his extensive 2013 and 2014 analyses of the South African REIPPPP Eberhard notes these additional shortcomings and risks:***

- The size and readiness of the RE market was initially overestimated and too much capacity was tendered with insufficient competition in round 1.
- The size and complexity of the programme stretched available advisory capacity to the limit – it might have been more prudent to start smaller and then gradually ramp up the programme.
- Transmission constraints – there is a risk that some completed RE projects may not be able to connect to the grid in a timely fashion.
- Local procurement process management capacity needs to be grown.

Having reviewed the successes, failures and risks of procurement of renewables in the REIPPPP, we turn next to the emergent base load procurement and then consider the common challenges for RE and BL IPPP models and compare RE and BL IPPP programmes.

# 6. State of play – Emergent practice and prognosis: BL IPPPP

Base load is the minimum amount of power that a utility or distribution company must make available to its customers, or the amount of power required to meet continuous requirements. BL values typically vary from hour to hour in most commercial and industrial areas. Each BL power plant on a grid is allotted a specific amount of the BL power demand to handle. The need for BL power nationally is managed by the System Operator.

Peaks or spikes in customer power demand are addressed by the inclusion of smaller and more responsive types of power plants called peaking power plants, typically powered with gas turbines. In the past, BL has been supplied exclusively by Eskom's coal-fired and nuclear power stations. Government procures BL power from Eskom. Some corporations have built BL power stations to generate electricity – but this has been their own initiative, with no relationship to government procurement.

The Ministerial determination of December 2012 announced a BL IPP procurement programme with 2 500 MW of coal, 2 652 MW of gas and 2 609 MW of domestic and imported hydro-electricity prospects. In terms of section 34(1) of the Electricity Regulation Act 4 of 2006 and new generation regulations of 2011, the Minister can determine who builds power plants. Given the planned scale of contribution, this programme would signal the inclusion of a significant proportion of independent power producers in South Africa's power supply system for the first time in South Africa. In addition, the Integrated Resource Plan (IRP) provides planning determinations around fuels. Ultimately, this means that Eskom no longer has the same power to initiate power project development.

It is worth noting here that in the 2012 Ministerial determination, the new coal-fired allocation was allocated to IPPs, not Eskom.

Taken together with a political decision that RE plants will not be built by Eskom and the fact that it does not build gas or hydro, the implication is that Eskom (after Medupi and Kusile are commissioned) would only focus on new nuclear build – unless nuclear power, too, were to be procured from IPPs or a nuclear utility.

## 6.1 Base load IPPs in South Africa today

The BL IPPPP remains emergent, in that some time has elapsed following the announcement in 2012, without clarity on specific plants to be procured. In principle, BL IPPs are procured by the usual Ministerial determination – at least for fossil-fuel BL, with nuclear being treated as a special case (see section 8).

In an *Engineering News* article in March 2014, the DOE announced that it was finalising documents for a BL IPPP. Requests for proposals would be published in April 2014. The article added that the DOE also 'planned to procure 474 MW from near-term natural gas projects as outlined under the Medium-Term Risk Mitigation Plan, which also included a further 800 MW allocation for cogeneration capacity, arising from biomass, industrial waste and combined heat and power sources' (*Engineering News*, 2014). *Engineering News* also reported that 'the DOE has revealed that the procurement process for gas IPPs would need to be guided by a Gas Utilisation Master Plan, which should be published in June 2014. For this reason any gas IPP procurement programme would only be initiated thereafter.'

On 14 April, 2014 the DOE announced that it intends to start a process to procure 800 MW of cogeneration, to be followed in May 2014 by 2 500 MW of coal generation (DOE, April 2014). The DOE indicated that a dedicated website would be established for the coal and co-generation programmes, as was the case with the REIPPPP. No reference was made to how the BL IPP procurement programme would be managed.

On 5 June, 2014, *Engineering News* followed up with a report that: 'Eskom will issue a tender soon for the procurement of an additional 500 MW of capacity from private generators, as part of a larger intervention to ensure supply security ahead of the introduction of new capacity from the Medupi, Kusile and Ingula projects'. On the same day, the interim Eskom CEO Collin Matjila confirmed that 598 MW had already been contracted with 'outside suppliers', including the Kelvin power station (150 MW), the Aggreko temporary power plant in Mozambique, as well as a number of short-term purchases from independent power producers (IPPs) and municipalities. These contracts would remain in force until April 2015.

The *Engineering News* article reported that Eskom hoped to conclude additional supply contracts with the private sector (including co-generation) by December 2014. Eskom officials quoted hinted that financing of the IPP programme would add to the utility's existing financial strain, but was justifiable.

To date, no information is available in relation to a procurement model for a BL IPPPP.

## 6.2 Key concerns in relation to a prospective BL IPPPP expressed in stakeholder interviews

At the time of writing (August 2014), a specific BL IPP procurement framework does not exist. Also, given that there has not been a significant formal BL IPP programme in South Africa thus far, we have limited this section to the noting of concerns in relation to the emergent programme.

The introduction of IPPs was seen by many stakeholders as a form of (positive) privatisation. Given the scale of BL IPPs (as compared to RE), most respondents felt that it is no surprise that the programme has been delayed. The scale of transactions means that they are complex: many competing interests will have to be managed. Most respondents concurred that it is worth investing in the development of a clear procurement framework in advance of the process, rather than allowing for too much interpretation or needing to allow for adjustment later on.

Listed below are general common concerns around a prospective BL IPPPP noted in stakeholder interviews.

***Competing local and international formally stated government agendas***

Policy analysis experts and development practitioners wondered whether there is in fact a stronger political push in the country's economic strategy for even greater industrialisation than has been explicitly indicated and understood thus far. Could related beneficiation and economic growth aspirations be driving government's domestic energy investment decisions even more strongly than has been understood thus far?

All governments are likely to come under increasing international pressure to curb carbon emissions. Stakeholders pointed out that South Africa's domestic and international policy agendas needed to be aligned. BL IPPs present an opportunity to expand co-generation in

particular and meeting both local energy security and emissions reduction targets. Respondents wonder whether these opportunities will actually be taken up.

***Large energy deals and rent-seeking***

Although not exclusively limited to BL IPPPPs, with large energy deals there are invariably more associated risks, such as larger financing arrangements and increased prospects of rent-seeking. The deals are usually more complex, difficult to understand and less transparent. Respondents working on issues of policy and governance cautioned that the larger the financial investment, and the more unique the options being considered, the less information is usually provided and therefore reflecting on comparisons between options is not even possible. The intended implementation of the nuclear programme as a special case of procurement (see section 8) adds additional complexity on the procurement of fossil-fuel BL IPPs.

Regulatory capture was an additional risk noted here, as was vendor financing. Where vendor financing models are unclear, it is even harder to identify some of the risks described above and/or to stop agreements timeously if necessary. Large-scale investment and increased accountability are recognised as wise partners.

A critical need identified throughout the study is that of designing a BL IPP procurement model that can manage and perhaps even avoid rent-seeking. Rather than simply noting that large energy deals are usually accompanied by rent-seeking, the design of the model needs to directly address such risk.

There should be clear recognition of the value of investing in a sufficiently robust model design. It is of great concern to stakeholders that, in an environment where energy agendas are in direct competition, there is not a lot of willingness to address design for innovative supply options with sufficient caution.

***Transaction costs, domestic financial resources and risk of rent-seeking***

We know that the transaction costs for REIPPPP were higher for bidders and for government than they would have been for a REFIT programme. This was accepted due to the developmental priority to achieve lower tariffs. Given that financing requirements of BL IPPs are likely to be even larger, stakeholders ask how the BL IPP will programme find the money it needs. Commercial banks cannot offer the kind of finance guarantees needed for large BL IPPs. Investment on this scale cannot be funded against Eskom's balance sheet, nor with further sovereign debt guarantees.

In the absence of other funding sources, there is an opportunity for foreign states to take on investment risk on condition that the majority of future revenue will accrue to them. Political analysts and civil society respondents in particular cautioned against the potential pitfall here of long term sovereign debt, deferred risk, lack of clarity on where liability should reside in the future and unaffordable legacies future generations could find themselves bound to.

***Local capacity to manage BL IPP procurement***

The REIPPPP has relied heavily on foreign professional staff capacity. Skilled local personnel working consistently on procurement are a very scarce resource. It is hoped that human resource development gained within the REIPPPP can also benefit the BL programme, while continuing the development of local capacity.

***The devil is in the (dispatch) detail***

Even after BL IPP procurement has happened, the day-to-day decisions around dispatch that will have to be faced can still reflect inherent power imbalances. Unless power purchase agreements are watertight, agreements will still be subject to the priorities and discretion of the system operator – Eskom. For example, if we have a number of BL IPPs and a choice needs to be made on which to dispatch and the system operator has to decide, given they have the monopoly, what would they choose? Power purchase agreements for BL IPPs need to be sufficiently attractive and secure to attract such IPPs.

## 6.3 BL IPPPP concerns expressed by stakeholders and experts that are specific to DOE, Eskom, DPE and Treasury

***The mandate of Ministers (DOE and DPE in particular), and how these play out in procurement***

A commonly stated view of respondents is that if sector plans like the IRP are not updated often enough investors cannot capitalise on market innovation. In such cases, the Energy Minister does need, and has the power, to intervene. However, most respondents would like to see a planning and procurement process (both BL and RE, but especially for BL) that is more flexible, where plans are indicative (e.g. emissions cap target, realistic demand projections, decisions on technology choices are more open-ended), the regulator is more active (i.e. being allowed to licence power stations not in the plan if they can be shown to be useful and appropriate) and procurement more vibrantly competitive.

Many respondents felt that the Minister should only be asked to intervene when things go wrong, rather than being in a position where he/she determines the full range of what should be, in advance. And then there is the frequently voiced speculation as to whether the DPE Minister actually controls energy investment decisions rather than the Energy Minister.

A view expressed regularly in the literature and in interviews is that big investment of any kind is always prone to being politicised. The solution offered most commonly is that procurement models need to be designed in order to deal directly with this reality and that it is even more important that transparency is taken seriously as a principle of good governance. This point relates to the assertion above from some respondents that the primary ministerial roles should be focused on oversight and monitoring, with full capacity to intervene only when the market fails.

Regardless of specific ministerial mandates, there was a strong view expressed among respondents that ministries should not be permitted to jockey among themselves for power, to the detriment of South Africa's long-term energy (and financial) security.

***The relationships and power plays between Eskom, DPE, Treasury and DOE***

All respondents were of the view that an effective procurement model which – to larger and lesser degrees – draws on the experience of managing the RE IPPPP is needed (and indeed possible) for BL IPPs. Such a system would also require co-operation between all of the key state players. Currently we know that DOE is tasked with secure, affordable energy supply, but at the same time DPE's strategic objectives might be focused strongly on economic growth or the dominance of state owned enterprises. Similarly, Treasury and Eskom have to cooperate on practical experience and historical information, but it is not clear whether Eskom has sufficient motivation to co-operate.

## 6.4 The prognosis for BL IPPs – from stakeholder interviews

Many respondents shared the hope that many lessons from the REIPPPP process will be applied to the design of the BL IPPPP. Some pointed to substantive differences between BL and RE, while others emphasised that such differences are likely to be attended to by the necessary experts. Several respondents offered the view that there is no reason to assume a whole new process will need to be designed and applied for BL IPPs.

The following short-term hopes for the BL IPP programme were expressed by respondents:

- That the programme is likely to be run by the same unit as ran the REIPPPP. This would mean that DOE would still have oversight, draw on National Treasury expertise and support, and that some of the same advisors and emerging local experts can be used while local capacity is strengthened.
- Given that thermal BL is different from RE (e.g. fuel risks), the specific documents and technical issues will differ, but other than this the procurement process is likely to be similar.
- The economic and social requirements will be recognised as innovative and essential features of the REIPPPP and thus retained in the BL IPP programme.

- A higher price, socio-economic benefit ratio as applied in REIPPP should be applied to BL IPP. Whether the ratio will be 70:30 is not known. The programme has political backing and therefore has every chance of succeeding.

# 7. Comparing RE and BL IPP procurement models – in practice and emergent

Given that we do not yet have any information on the emergent BL IPP procurement model, it is not possible to compare two existing procurement models but, based on our research, the following deductions in relation to South Africa's BL IPPPP seem reasonable:

- BL IPPs operate in a very different supply context to RE IPPs and of course will provide fossil-based, rather than renewable, energy at a larger generation scale.
- Given the potential for cross-border supply which is likely to be allowed with BL IPPs (unlike with REIPPPP), new risks will need to be taken into account.
- Individual BL IPP projects will require more sizeable project investment.
- Such investments will be more difficult to finance.
- The number of prospective companies that are in a position to bid for such large and complex investments is likely to be smaller than for REIPPPP. Estimates range between 4 and 12 sufficiently large corporate players.
- As with the REIPPPP, the BL IPP process will be likely to learn from the different bidding windows but, given the scale of investment, lessons may be more costly and have more significant implications for bidders.
- It may be necessary to have a greater dependence on public finance for the BL IPP programme as compared to the REIPPPP.
- The dispatch risk to be carried by BL IPPs is far greater than for RE IPPs – RE power has to be purchased, BL power dispatch will likely be dependent on Eskom's dispatch preferences.
- Most stakeholders expect that SED and ED requirements will be lower for BL IPP projects. With larger total investments, smaller share would still constitute significant funding of socio-economic development. Aside from the fact that BL plants are usually located in very different social settings to RE plants, the DBSA and the Independent Development Corporation are unlikely to be able to absorb many more such projects.

# 8. Common challenges of RE and BL IPP procurement

There are three major and common areas of concern that have emerged from the study, as discussed below.

***Local capacity for managing the procurement process***

DOE has relied significantly on external consultants and expertise from Treasury in both the design and implementation of the REIPPPP (McDaid & Wood, 2013). The REIPPPP unit exists outside of government and is therefore a vulnerable institution arrangement, dependent on leadership of one individual. Although new capacity is being built, it will take years to build sufficient local transaction experience so foreign (expensive) expertise is likely to be relied on for a while yet. It has been suggested that ISMO might have been an ideal institutional home for the REIPPPP and BL units. Some respondents felt that a new institution would be a waste of resources and that instead, the South African National Energy Development Institute or NERSA could be provided with increased capacity and the necessary balance of independence and political support to efficiently host an IPP unit. Any transfer to new institutional homes should seek to maintain the many good practices established by the IPP unit during REIPPPP.

***The powers of the DOE minister***

According to section 34 of the Electricity Regulation Act of 2006, the Minister has the prerogative to conclude PPAs. The Act does not provide guidance for exercising such prerogative. Several respondents point to this potential for the minister to play both an oversight and a 'procurer' role as a weakness in the current procurement framework. On the other hand,

with the minister having and exercising such power, the IPPs could be seen to have greater political backing and thus a greater chance of success.

The true test of the robustness of energy procurement regulation appears at the stage of implementation. Again, this is also subject to the discretionary powers of the Minister. The use of executive authority to override regulation is an important potential threat to good governance.

Several respondents pointed to the value of limiting the role of the Minister to high level planning and regulation that can provide the ideal environment for implementation (including procurement) to progress. Clarity on the role of NERSA will become even more crucial with BL IPPs.

***Socio-economic and enterprise development projects***

As outlined above, there are several concerns in relation to emerging implementation experience with SED and ED projects. Lessons learned, best practice guidelines, greater monitoring clarity from DOE, and the passing of time will all potentially result in improved practice and confidence. How the BL IPP programme deals with the allocation of price and community benefits during the RFP stage will provide an indication of likely challenges for BL IPP bidders. As with the REIPPPP, it would be advisable to create a platform where developers, practitioners and academics can share perspective and develop practice which can ultimately benefit beneficiary communities adequately.

Having compared RE and BL IPP procurement models based on existing research and experience, we now pause here to briefly reflect on nuclear procurement before we provide concluding questions and recommendations for the future.

## 9. Procurement of a special type? Nuclear power

The focus of this paper has been on RE and BL IPP procurement. Though it is currently somewhat unclear whether nuclear new build may or may not be built by IPPs, in South Africa nuclear power is treated as a special case. For this reason, some reflections on procurement in relation to nuclear power are added here.

The nuclear new build programme is estimated to have a price tag of between R300 billion and R1 trillion. The 2012 National budget review (Treasury, 2012) under its major infrastructure investments for Energy noted that investment of R300 billion would potentially be needed over 17 years for the nuclear build programme. It indicated Eskom as implementing agent, though it was not clear whether this also indicated who would finance the investment. This estimate of investment is at the very low end predicted by experts, and there is no clarity where up to R1000 billion of investment would come from. In the 2014 budget review, no similar reference can be found (Treasury, 2014). The new Energy Minister indicated in her budget speech that R850 million has been 'allocated to the Department and its relevant agencies in order to undertake further research and development, especially in regard to safety matters'.

While nuclear power supply was not included in the Ministerial determination of 2012 – even though nuclear power technically is base load power – the procurement of the IRP2010 nuclear build allocation is of great concern to many stakeholders.

Nuclear power is included in the IRP, and thus in electricity planning. Minister Joemat-Petterson has recently repeatedly indicated a firm intention to 'focus on and accelerate all the outstanding matters that will lead to the commencement of the nuclear build programme as envisaged in the IRP.' This appears to be a reference to the original IRP 2010, rather than the update which the DOE published for comment in 2013, which indicated that the need for nuclear power might not be as urgent as originally thought.

Nuclear power is treated differently to other electricity generating technolgoies in procurement – in the step from planning to allocation. Unlike the RE and BL procurement models, nuclear energy procurement is specifically excluded from the new generation regulations and its model of Ministerial determination. Different rules appear to apply, but precisely what those rules are is not entirely clear. A possible reason for this is that nuclear procurement is usually more politically determined.

A study of the national Integrated Energy Plan conducted for *Project 90 by 2030*, involving in-depth interviews with over 30 senior South African energy planning decision-makers within eight sectors, made a key finding that with big energy development decisions, politics may over-ride logic, or more fully:

> It is not clear to what extent big energy development decisions are actually entrusted to processes like IEP and IRP vs political principals and/or strategic international deal-making. It is hard to ascertain when politics may over-ride logic, and to what extent the IEP is an intellectual exercise, or even a distraction from the real business of deal-making. The case for new nuclear build is a case in point – it seems to feature in plans regardless of a cost-benefit proposition, an impression that is reinforced by senior government statements that some form of procurement commitment is 'about to be signed. (Worthington & Martin, 2014)

Nuclear power had been addressed politically in a National Nuclear Energy Executive Coordination Committee prior to the 2014 elections. The committee had earlier been chaired by the Deputy President, but was later taken over by the President, thus moving political decision-making to the highest level.

During his June 17 State of the Nation Address, President Zuma identified energy security as a priority for enabling South Africa to achieve economic growth of 5% by 2019. Subsequently a Cabinet Energy Security Sub-Committee has been established by the Presidency to 'oversee the development of South Africa's future energy mix' (Presidency, June 2014). The sub-committee would 'explore various energy options including nuclear power, Solar, Wind, Coal, Gas, hydropower and fuel refineries' (*Engineering News*, July 2014). This presidential initiative replaces the inter-ministerial committee on nuclear energy and includes the following Ministries: Energy, International Relations and Co-operation, Public Enterprises, Finance, State Security, Trade and Industry, Economic Development, Mineral Resources, Environmental Affairs, and Defence. It is worth noting here that, despite the links between energy and water security, the Department of Water Affairs has not been included on the energy security sub-committee. The relevance of Departments of Defence and State Security to energy security are hard to fathom.

Tina Joemat-Petterson, who became Energy Minister in June 2014, indicated in her first budget vote speech that the country 'will include the use of nuclear power for base load energy generation, which will be in a safe and environmentally sustainable manner'.

In addition to this new structure for domestic political oversight, procurement of nuclear power also has geopolitical dimensions. Specific and recently more visible international relationships were noted by respondents working in the area of governance and democracy. They pointed to South Africa's current diplomatic interactions with China, Russia and France and related energy procurement deals reported in the media. How the winning nuclear power suppliers might be determined remains a matter of speculation in the energy sector, since the procurement process is not transparent.

The nuclear supply programme in South Africa can therefore be understood to be supported by a combination of three things: (1) the highest political decision-making; (2) significant financial commitments required from Eskom, Treasury or other sources; and (3) exclusion from transparent procurement process applied to other electricity-generating technologies.

## 10. Questions and recommendations for the future

This report has explored the question of what procurement model in South Africa applies to RE and BL IPPs and, as a special case, nuclear power. Based on primary data from an initial literature review, interviews and secondary literature, some questions are raised in this conclusion, as a contribution to an informed public debate. Also to that end, we then offer recommendations for the continuation of the REIPPPP and the emergent BLIPPPP.

## 10.1 Questions

- The REIPPP has been procured by an IPP unit run as a partnership between DOE and Treasury. This had never been done before – will the much trusted REIPPPP Unit run the BL IPPPP? And if so, will the partnership result in similar positive outcomes for BL IPPPP?
- How might the additional workload for BL IPPPP impact on the viability of the REIPPPP, if both are run by the same IPP unit?
- Will the socio-economic criteria applied to REIPPPP bids be applied to BL IPPs? If so, will the price / non-price ratio of 70 / 30 be maintained?
- How best can socio-economic benefits be delivered in the REIPPPP, including through monitoring? What are appropriate approaches for BLIPPPP and nuclear procurement?
- BL independent power procurement at scale has not been done before. Previously government would have asked Eskom to build coal or nuclear and handle procurement. How will Eskom respond to this shift?
- Given concerns around Eskom as single buyer, how will dispatch of BL IPPs be guaranteed?
- Vendor finance has been highlighted as an essential part of the REIPPPP's success. BL IPPP will require even more vendor finance. How will the BL IPPPP find the money it needs? When will vendor finance models for BL IPPP be clarified? How will deferred risk be taken into account? How might Eskom's financial health impact on the vendor finance environment?
- Energy procurement models are changing in practice and are still emerging in South Africa. Collectively this introduces a number of rather different players, power dynamics and process needs than in the past. Will we find sufficient local resources to meet new needs? In particular, how will local capacity on transaction advice be enhanced?
- Will the sector collectively provide affordable and universal access to electricity?

## 10.2 Recommendations

Based on the analysis of the existing RE and emergent BL IPPPP, the following recommendations are offered:

1. The successes of the RE IPPPP should be built upon, as they seem transferable to a significant degree to BL IPPPP.
2. It is worth investing in the development of a clear procurement framework in advance of the process being launched. Ideally, there should be one procurement model for all electricity-generating technologies. Bid windows in the REIPPPP programme allowed for continued additional learning and application in subsequent bid windows. At a minimum, transparent processes must apply in all procurement, as a matter of good energy governance.
3. In time, it would be wise if the Minister of Energy's role was limited to the highest level of policy development and guidelines which can lead to the creation of a space in which role players can apply developmental values and prove their capacities.
4. Procurement should be flexible, indicative of plans, the regulator active and procurement more vibrantly competitive in order to achieve lower tariffs. Lower tariffs should not be achieved at the cost of SED and ED criteria.
5. Large-scale investment and increased accountability are recognised as wise partners. The emergent BL IPPPP provides a good opportunity to add even more features of transparency and accountability to those which emerged with the REIPPPP.
6. Big investment of any kind is prone to being politicised. Procurement models for BL IPPPP and nuclear need to be designed in order to proactively deal with this reality. The challenges of Eskom's financial health and strains of sovereign debt place further stresses on these dynamics.
7. It is critical to design a BL IPP procurement model that can manage and even avoid rent-seeking. At the very least, this risk should be explicitly considered and a procurement process designed to manage the risk of rent-seeking.
8. Procurement of BL IPPs presents an opportunity to expand co-generation in particular, and thereby meeting both local energy security and emissions reduction targets.

9. Power purchase agreements for BL IPPs need to be watertight and not be solely subject to the priorities of the Eskom system operator.
10. The socio-economic and local enterprise criteria applied in the REIPPPP is innovative and appropriate in our development context. These should be included in the BL IPPPP and indeed all procurement, including nuclear.

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